

REMARKS

Claims 4-9 are pending in the present application. Claims 4-9 are rejected. Claims 4 and 9 are herein amended. No new matter has been entered.

Claim Rejections - 35 U.S.C. §103(a)

Claims 4-6 and 8 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,609,929 to Kamarauskas et al. in view of U.S. Patent No. 6,736,680 to Slack et al. and U.S. Patent No. 6,447,340 to Wu and U.S. Patent No. 6,592,392 to Po-Heng. The Examiner admits that the engaging projections of Kamarauskas et al. are not shown as being part of the opening wall, that the contact pieces are not at varying distances with respect to the cavity openings, and that no convex region is shown in Kamarauskas et al. The Examiner notes that Slack et al. discloses engaging projections which are part of the opening wall, and concludes that forming the engaging projections of Kamarauskas et al. in this way thus would have been obvious to better prevent plug removal.

The Examiner notes that Wu discloses horizontal contacts 30, 32 that are spaced at varying distances from the cavity opening, and concludes that forming the contacts of Kamarauskas et al. in this way would have been obvious for safety purposes. The Examiner notes that Po-Heng discloses V-shaped convex regions in the plug loading slot containing terminals 421, and concludes that providing the plug loading slot of Kamarauskas et al. with such V-shaped convex regions would have been obvious to facilitate insertion of a mating connector.

Applicants herein amend the claims to more clearly define the invention. Specifically, Applicants restrict claim 4 with the limitation “wherein said plug loading slot is asymmetrical between said top and said bottom sides so that said plug can be inserted in only a single position relative to said slot.” Thereafter, Applicants submit that not all of the claimed limitations are taught or suggested by the cited references or combinations thereof.

The Inventors submit that because Po-Heng is arranged symmetrically top and bottom, it can not prevent a plug from being incorrectly inserted upside down. Applicants submit that in the present invention as herein clarified, the V-shaped convex portion is formed at one side of the inlet, and the other side of the inlet is formed into a concave shape. Such asymmetry between the top and bottom will prevent a potentially catastrophic reversal of the polarities of the plug wires. Applicants submit that this feature is neither shown nor suggested in the cited combination of references.

Furthermore, Applicants specify in claim 4 that the contacts have the same shape. Applicants note that this feature, illustrated in Fig. 6, enables the contacts to have a uniform distance between the contacts, which enables a uniform thickness of insulation to be placed between the contacts. On the other hand, Wu teaches contacts that assume different shapes (30, 32), so insulation distance between such contacts will disadvantageously vary along their length. Applicants submit that this feature is neither shown nor suggested in the cited combination of references.

Claim 7 is rejected under 35 U.S.C. §103(a) as being unpatentable over Kamarauskas et al. in view of Slack et and Wu as applied to claim 4 above, and further in view of Hung et al.

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6,264,501. The Examiner concludes that coloring the plug loading slots of Kamarauskas et al. with different colors would have been obvious to prevent insertion of incorrect plugs.

Applicants submit that because claim 4 has been distinguished herein, and because claim 7 is dependent from claim 4 and necessarily includes at least its limitations, Applicants submit that claim 7 has been distinguished as well.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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